



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/291,798	04/14/1999	JEFF SOLUM	500.715US1	2590

27073 7590 04/10/2002

FOGG SLIFER & POLGLAZE, P.A.  
P.O. BOX 581009  
MINNEAPOLIS, MN 55458-1009

EXAMINER

ODLAND, DAVID E

ART UNIT PAPER NUMBER

2662

DATE MAILED: 04/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/291,798

Applicant(s)

SOLUM, JEFF

Examiner

David Odland

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 & 4. 6) ☐ Other:

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. Claims 2, 11 and 18 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2 and 11 recite the limitation "...retransmission of a packet..." in line 3, respectively. This limitation is confusing; it is unclear how there could be a retransmission of a packet when there was not any initial transmitting of a packet recited.

Claim 18 recites the limitation "...a data packet that is retransmitted..." in line 2. This limitation is also confusing; it is unclear how a packet could be retransmitted when there was not any initial transmitting of a packet recited.

### ***Claim Rejections - 35 USC § 102***

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1,3,5,6,8-10,12-15,17-19 and 2,11 and 18, as best understood, are rejected under 35 U.S.C. 102(a) as being anticipated by Medendorp et al. (U.S. Patent number 5,764,734), hereafter referred to as Medendorp.

Referring to claim 1, Medendorp discloses a method for controlling power consumption in a device (a method for controlling power consumption [see abstract]), comprising powering down at least a portion of a receiver of the communication device for a selected period of time (power to a transceiver is turned off for the duration of a sleep timer [see column 5 lines 23-37 and figure 8]), when the selected period of time

expires, powering up at least a portion of the receiver (after the sleep timer equals zero the transceiver is powered up [see column 5 lines 23-37 and figure 8]).

Referring to claim 2, Mendendorp discloses powering down the at least a portion of a receiver for a period of time sufficient to allow detection of an attempted retransmission of a packet (the transceiver is powered down for a period of time in which it waits to detect a frame with an alert value in it [see column 5 lines 23-37 and figure 8]).

Referring to claim 3, Mendendorp discloses powering down the at least a portion of a receiver for a selected period of time comprises setting and decrementing a counter (the transceiver is powered off until the sleep timer counts down to zero[see column 5 lines 23-37 and figure 8]).

Referring to claim 5, Mendendorp discloses powering up the at least a portion of a receiver to check for incoming data as discussed above, comprising powering up the receiver checking for incoming data (powering on the transceiver and checked for the alert frame [see column 5 lines 23-37 and figure 8]), when no data is detected, checking for incoming data after another selected period of time (if the alert value has not been received it then checks for an incoming call), when incoming data is detected, processing the data (if a call is received the call is processed [see column 5 lines 23-37 and figure 8]), when no incoming data is detected, powering down the receiver for a selected period of time [if the alert frame is not received the timer is reset and the transceiver is powered off [see column 5 lines 23-37 and figure 8]).

Referring to claim 6, Mendendorp discloses communications device (a communications device [see figure 1]), comprising a transmitter that transmits data and a receiver that receives data over a communications link (a transceiver connected to a communications link [see figure 1]), a signal processing circuit, coupled to the transmitter and receiver, to prepare data for transmission and to process data received by the receiver (a transmit/receive matrix which processes the transmit and receive signals to an appropriate channel [see figure 1]), and a control circuit, responsive to the signal processor, that selectively powers at least a portion of the receiver down for a period of time and that powers up the at least a portion of a receiver to check for incoming data when the selected period of time expires (a controller which powers off the transceiver for an interval of time according to a sleep timer and then powers up the transceiver at the timer expires)).

Referring to claim 8, Mendendorp discloses that the control circuit powers up the Receiver to check for incoming data for a selected period of time (the controller powers on the transceiver for a period of time to detect the if has received the alert frame and if it hasn't the receiver is put back into sleep mode [see column 5 lines 23-37 and figure 8]).

Referring to claim 9, Mendendorp discloses the control circuit selectively powers down at least a portion of a receiver when a selected period of time after power-up has expired or when a signal indicates that a current data transmission is complete (the controller powers down the transceiver after a period of time in which it decides there was no alert frame received [see column 5 lines 23-37 and figure 8]).

Referring to claim 10, Mendendorp discloses that the signal processing circuit is for a cable modem (the transmit/receive matrix circuit is for a CAU (cable access unit) [see figure 1]).

Referring to claim 11, Mendendorp discloses that the control circuit powers down the at least a portion of a receiver for a period of time sufficient to allow detection of an attempted retransmission of a packet (the transceiver is powered down for a period of time in which it waits to detect a frame with its alert value in it [see column 5 lines 23-37 and figure 8]).

Referring to claim 12, Mendendorp discloses a communication network, comprising of a head end communication device and at least one remote communication device that is communicatively coupled to the head end communication device (a head end device connected to the cable access units [see figure 1]) and wherein each of the at least one remote communication device includes a control circuit (a transceiver which has a controller) that powers down a receiver of the at least one remote communication device for a selected period of time and that powers up the receiver of the at least one remote communication device to check for incoming data from the head end communication device when the selected period of time expires (a controller which powers off the transceiver for an interval of time according to a sleep timer and then powers up the transceiver at the timer expires)).

Referring to claim 13, Mendendorp discloses each of the at least one remote communication device is powered over the connection between the head end communication device and the at least one remote communication device (the cable

Art Unit: 2662

access units are receive power from the head end to provide line powered telephone service [see figure 1 and column 2 lines 36-67])

Referring to claim 14, Mendendorp discloses each of the at least one remote communication device comprises a cable modem (the remote device is a cable access unit [see figure 1 and column 1 lines 36 –66]).

Referring to claim 15, Mendendorp discloses each of the remote communication devices is communicatively coupled to the head end communication device over a communication network (the cable access units are connected to the head end over a communications link [see figure 1]).

Referring to claim 17, Mendendorp discloses a power control circuit for a communication device (a method and apparatus for controlling power consumption [see preamble]) comprised of a counter that establishes a selected time period for powering down a receiver of the communication device (power to a transceiver is turned off for the duration of a sleep timer [see column 5 lines 23-37 and figure 5]) and a processor coupled to the counter (the timer is within a microprocessor [see column 5 lines 23-37 and figure 5]), that is programmed to control the reset of the counter, to power down the receiver, and to power up the receiver to check for incoming data when the counter indicates that the selected time period has expired (the microprocessor controls the timer so that the transceiver is powered down until the sleep timer expires and then powered up to check for incoming alert frames [see column 5 lines 23-37 and figure 5 and figure 1]).

Referring to claim 18, Mendendorp discloses that the counter establishes a time period that is sufficient to allow detection of a data packet that is retransmitted by another communication device when no acknowledgment signal is received by the other communication device (the transceiver is powered down for a period of time in which it waits to detect a frame with its alert value in it [see column 5 lines 23-37 and figure 8 and figure 5]).

Referring to claim 19, Mendendorp discloses the processor is programmed to power up the receiver for a selected time period to check for incoming data (powering on the transceiver for a time period and checked for the alert frame [see column 5 lines 23-37 and figure 8 and figure 5]).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4, 7, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mendendorp in view of Tiedemann et al. (U.S. Patent number 5,392,287), hereafter referred to as Tiedemann.

Referring to claim 4 and 7, Mendendorp discloses a method for controlling power consumption in a device comprising of a counter as discussed above. Mendendorp does not disclose synchronizing the counter with a counter disposed at the source of the incoming data. However, Tiedemann discloses synchronizing a receive with that of



Art Unit: 2662

the transmitter of which its connected to [see column 4 lines 17-33]. It is well known in the art that synchronization is done it alleviate timing problem between receivers and transmitters in a system. Therefore, it would have been obvious to one skilled in the art at the time of the invention to perform the synchronization disclosed in Tiedemann, in the system of Mendendorp in order to avoid timing problems.

Referring to claim 16, Mendendorp discloses a method for controlling power consumption in a device as discussed above. Mendendorp does not disclose the head end communication device transmits data with a protocol that allows for retransmission of data that is not acknowledged by the at least one remote communication device. It is well known in the art to use the acknowledgment/retransmission protocol for data transmission because it provides reliability. Therefore, it would have been obvious to one skilled in the art at the time of the invention to utilize an acknowledgment/retransmission protocol in the recited power consumption apparatus in order to provide reliable communication between the head end and the remote communications device.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- a. U.S. Pat. No. 6178447 to Wannemacher et al. discloses a telecommunications network receiver.
- b. U.S. Pat. No. 6208266 to Lyons et al. discloses a remote data acquisition and processing system.

Art Unit: 2662

- c. U.S. Pat. No. 5544082 to Garcia-Duarte et al. discloses a method and system for placing a computer in a reduced power state.
  - d. U.S. Pat. No. 5491721 to Cornelius et al. discloses a modem powering method and apparatus.
  - e. U.S. Pat. No. 6304596 to Yamano et al. discloses a method and apparatus for reducing signal processing requirements for transmitting packet-based data with a modem.
  - f. U.S. Pat. No. 6307881 to Noma et al. discloses a modem control method.
  - g. U.S. Pat. No. 6233235 to Burke et al. discloses a packet telephony power management.
  - h. U.S. Pat. No. 6075787 to Bobeck et al. discloses method and apparatus for messaging, signaling, and establishing a data link utilizing multiple modes over a multiple access broadband communications network.
  - i. U.S. Pat. No. 5881361 to Mannette et al. discloses a communication unit power up sequencing.
  - j. U.S. Pat. No. 6131023 to Matsuura discloses a cable modem tuner with an up-stream and a reception circuit in the same casing.
  - k. U.S. Pat. No. 6160572 to Matsuura et al. discloses a tuner for cable modem.
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Odland whose telephone number is (703) 305-3231. The examiner can normally be reached on Mon-Fri 8am to 5pm.

Art Unit: 2662

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached at (703) 305-4744. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

deo

March 27, 2002

A handwritten signature in black ink, appearing to be 'H. Kizou', written in a cursive style.

HASSAN KIZOU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600